

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Currently Amended): An image processing apparatus for converting an interlaced image data to a non-interlaced image data, comprising:

a motion detection unit configured to compare pixel data of an interlaced image to perform a motion detection;

a history value generation unit configured to generate a history value indicating the number of times that a determination is continuously made that the interlaced image is a still image, based on a motion detection result from the motion detection unit; and

a pixel data interpolation unit configured to mix pixel data generated by interpolation in a field and pixel data generated by interpolation between a plurality of fields, based on pixel data of the interlaced image at a mixture ratio in accordance with the motion detection result and the history value, the pixel data interpolation unit including

a mixture ratio setting unit configured to change the mixture ratio determined by the motion detection result of the motion detection unit and the history value such that the larger the history value is, the higher a ratio of the pixel data from the inter-field interpolation unit becomes, and ~~wherein the larger the history value is,~~ the larger the amount of pixel data generated by interpolation between fields the pixel data interpolation unit mixes.

Claim 2 (Currently Amended): An image processing apparatus as set forth in claim 1, wherein said pixel data interpolation unit includes ~~comprises~~:

an in-field interpolation unit configured to generate the pixel data by interpolation from pixel data in a field_i[[;]]

an inter-field interpolation unit configured to generate the pixel data by interpolation from pixel data in a plurality of fields_i[[;]]

a pixel data mixing unit configured to mix the pixel data from the in-field interpolation unit and the pixel data from the inter-field interpolation unit at a predetermined mixture ratio; and

~~a mixture ratio setting unit configured to change the mixture ratio determined by the motion detection result of the motion detection unit and the history value in such a way that the larger the history value is, the higher a ratio of the pixel data from the inter-field interpolation unit becomes.~~

Claim 3 (Previously Presented): An image processing apparatus as set forth in claim 1, wherein said history value generation unit is configured to generate a history value for interpolation of an adjacent pixel in a field delayed by one field from a field where pixel data to be generated by the interpolation and updates with respect to each interpolation.

Claim 4 (Previously Presented): An image processing apparatus as set forth in claim 1, wherein said history value generation unit is configured to generate a history value for an interpolation of an adjacent pixel in a field differing from a field where pixel data to be generated by the interpolation, generate a history value for an interpolation of an adjacent pixel in the same field where pixel data to be generated by the interpolation, and update respectively with respect to each interpolation.

Claim 5 (Currently Amended): An image processing method of converting an interlaced image data to a non-interlaced image data, comprising:

comparing pixel data of an interlaced image pixel-by-pixel between frames to perform a motion detection;

generating a history value indicating the number of times that a determination is continuously made that the interlaced image is a still image, based on a result of the motion detection; and

interpolating by mixing pixel data generated by interpolation in a field and pixel data generated by interpolation between a plurality of fields, based on pixel data of the interlaced image at a mixture ratio in accordance with the motion detection result and the history value, the interpolating by mixing pixel data including

setting a mixture ratio by changing the mixture ratio determined by the motion detection result of the motion detection and the history value such that the larger the history value is, the higher a ratio of the pixel data generated by the inter-field interpolating becomes, ~~and wherein the larger the history value is,~~ the larger amount of pixel data generated by interpolation between fields mixes.

Claim 6 (Currently Amended): An image processing method as set forth in claim 5, wherein said interpolating of pixel data further comprises;

in-field interpolating by generating the pixel data of a line having no pixel data in a field by interpolation from pixel data in the field;

inter-field interpolating by generating the pixel data by interpolation from pixel data in a plurality of fields;

mixing of pixel data by mixing the pixel data generated by the in-field interpolating and the pixel data generated by the inter-field interpolation unit at a predetermined mixture ratio; ~~and~~

~~setting of a mixture ratio by changing the mixture ratio determined by the motion detection result of the motion detection and the history value in such a way that the larger the~~

~~history value is, the higher a ratio of the pixel data generated by the inter-field interpolating~~
becomes.